MINUTES
THE RECLAMATION BOARD WORKSHOP
March 14, 2006

A special workshop meeting of the Reclamation Board was held on March 14, 2007 beginning at 2:07 p.m. in the East End Complex/Department of Health Services Building Auditorium,1500 Capitol Avenue, Sacramento, CA 95814.

The following members of the Board were present:

Mr. Benjamin Carter, President
Mr. Butch Hodgkins, Vice President
Ms. Lady Bug Doherty, Secretary
Ms. Rose Marie Burroughs, Member

The following members of the staff were present:

Mr. Jay Punia, General Manager
Mr. Stephen Bradley, Chief Engineer
Mr. Dan Fua, Supervising Engineer
Mr. Scott Morgan, Legal Counsel
Ms. Lorraine Pendlebury, Staff Assistant

Department of Water Resources staff present:

Mr. Steve Cowdin
Mr. Les Harder
Mr. Rod Mayer
Mr. George Qualley

Also present (according to sign-in sheet and cards):

Mr. Stein Buer, Sacramento Area Flood Control Association
Mr. Joe Countryman, MBK Engineers
Mr. Tom Eres
Mr. Gary Estes
Dr. David Ford, David Ford Consulting Engineers
Mr. Scott Shapiro, Downey Brand
Mr. Ronald Stork, Friends of the River
Mr. Jeff Twitchell, Wood Rogers
Mr. Tim Washburn, Sacramento Area Flood Control Association
Mr. John Bassett, Sacramento Area Flood Control Association
Mr. Thomas Foley, Concerned Citizens for Responsible Growth
Mr. Coleman Foley
Mr. Pal Hegedus

Mr. Bryan Yates
Mr. David Peterson
Mr. Earl Nelson
Mr. Glenn McPherson
Mr. Thomas Plummer, Civil Solutions
Ms. Emma Suarez

1. ROLL CALL

President Ben Carter brought the meeting to order at 2:07 p.m.. All Board members were in attendance except for Member Teri Rie.

2. PURPOSE OF THE DRAFT REPORT ON OPTIONS FOR MEASURING, PREVENTING, AND MITIGATING IMPACTS DUE TO IMPROVEMENTS TO THE SACRAMENTO AND SAN JOAQUIN FLOOD CONTROL PROJECTS *(Jay Punia)*

President Carter stated that the purpose of this meeting is to discuss and hear public comments on the draft report. No action would be taken today; this is an informational briefing only, with the opportunity to exchange ideas.

General Manager Punia pointed out that with the funding from Propositions 1E and 84, there is now an opportunity to make a difference in flood control projects. The goal of this report is to provide information with which the Board and its staff can enhance the decision-making process for permitting. He then introduced Dr. Ford.

3. SYNOPSIS OF THE REPORT *(Dr. David Ford)*

Dr. David Ford, David Ford Consulting Engineers, stated that there were three points in the report: (1) that the things that we can do to improve the system may have some external impacts, and by external he means at places other than where we have made the improvements; (2) that we have a lot of different ways to measure that impact, some of which have been listed in this report, and they can range from purely hydraulic indices to economic and statistical indices; and (3) that we have some options for mitigating or preventing the adverse impacts, a list of which has been developed by Dr. Ford's staff, Reclamation Board staff, DWR staff, and with input from people in the audience.

The levee system was designed 50 years ago, and the design was based on looking at historical floods and taking data from these events to incorporate in the design process, rather than planning for a 200-year project or a 25-year project. And the system provided for a higher level of protection for the urban areas than for the rural areas.

The report considers three things that can be done to improve the level of protection: (1) levee raising; (2) levee strengthening; and (3) levee relocation or realignment; any of which could have an unintended or indirect consequence upstream or downstream of that site as a consequence of changing the hydraulics to flow in the channel.

In measuring impacts, Dr. Ford's study used the idea of the baseline condition as the key for measurement. Using the 1957 profile, the original design of the system, the baseline condition is considered to be the state of the system that is consistent with the intended design of the system. Impact measurement options to consider are:

- *Change in water-surface elevation or flow conveyance for system design flow*
- *Change in water-surface elevation for flow of specified annual exceedence probability*
- *Change in potential damage for system design flow*
- *Change in potential damage for flow of specified annual exceedence probability*
- *Change in expected annual damage*
- *Change in portion of expected annual damage due to flows greater than system design flow*
- *Change in annual probability of inundation of interior floodplain*
- *Change in probability of passing safely the design flow*
- *Change in probability of passing safely flow of specified probability*

In answer to questions, Dr. Ford clarified that the baseline condition presumes that the system upstream of the site at which improvement is being made performs as designed, with no upstream failures for flows that are less than the design flow rate. However, there are still questions to be answered and determinations to be made as to what happens if the system does, in fact, fail.

Dr. Ford stated that the most important practical consideration in discussing prevention or mitigation is the need for hydraulic modeling software that can collectively be agreed upon as doing a good job of representing the system. Previous analysis has been done with a combination of work from the Corps of Engineers, Department of Water Resources, and local consultants. Now is the time to agree on a mathematical model to use, with a procedure or method for maintaining that model in a state that is an adequate, almost RealTime, representation of the current state of the system. There also needs to be software that can be used for risk and economic analysis. Much more data has to be collected and inventories of damageable property developed for use as the basis of the calculations for risk and economic analysis. Combining different bases for analysis will complicate calculations, but should be done. And finally, any of these considerations will have system-wide impacts; something done upstream can have impact far downstream, even to the Delta.

Options for preventing or mitigating impacts are:

- *If it has an impact, don't do it.*
- *Mitigate the impacts with some other structural measure*
- *Notify those who are going to suffer as a consequence of that adverse impact*
- *Reimburse those who suffer the increased damage potential*
- *Insure those with increased damage potential*
- *Collect an impact fee to offset the increased construction costs for a system-wide plan of flood control*

- *Pay the cost associated with any increase, if and when it occurs*
- *Provide other types of insurance, or assurance*

4. PUBLIC COMMENTS & QUESTIONS

In answer to a question from Member Burroughs, Dr. Ford stated that software is available; there is just the need for various entities to input and maintain all the data needed.

Mr. Joe Countryman of MBK Engineers felt it would be helpful if there was a State repository for the approved hydraulic model with all current data.

Mr. Steve Cowdin stated that DWR is looking at trying to update the Comp Study Models.

In answer to a question from Vice President Hodgkins regarding impacts that have to be mitigated, Dr. Ford stated that once the information has been presented by the engineers and scientists, it is for the Board to make the policy decision.

Division of Flood Management Chief Rod Mayer stated that part of the new State Plan of Flood Control is getting that accurate hydrology. DWR is working on a contract with the Corps to develop hydrology, up to a 500-year event. He expects this to take about two years. In answer to a question from Joe Countryman, Mr. Mayer stated that DWR is working on developing contracts that will develop the models for the system.

Mr. Tom Eres thanked the Board and DWR for commissioning the report; he was impressed with the scope of the report.

Mr. Ron Stork stated that he feels a system has to be adopted that is functional. He also questioned how the risk factors will be calculated.

Mr. Scott Shapiro stated that he feels that many of the tests contained in the report have the potential to lead to inaction or paralysis. He also has a concern regarding the "baseline," as it assumes a perfect state for the upstream levees for purposes of determining impacts, and it is impossible for those levees to ever actually be perfect.

Mr. Tim Washburn explained further the table in the appendix that SAFCA had compiled.

Mr. Stein Buer stated how important it is for the Board to step forward into joint leadership at this time. He remarked that the SAFCA Board has not been consistent, and that we should act NOW and go by the rules.

Mr. Jeff Twitchell noted that much of the modeling is based on one-dimensional modeling and feels that 2-D might be a better approach and echoed David Ford's remarks about needing a central clearing house for the information and data.

Mr. Joe Countryman stated that his recommendation is to analyze the design flow because that has the least assumptions associated with it.

5. NEXT STEPS FOR FINALIZING THE REPORT *(Jay Punia)*

General Manager Punia stated that the next step will be to bring the report back to the Board as an action item for approval from the Board. He will also ask Dr. Ford to incorporate some of the comments from today's meeting to fine-tune and finalize the report. The report will then be used by the Board staff to provide the best information possible to the Board for the decision-making process on future projects.

6. ADJOURN

President Carter adjourned the meeting at 4:25 p.m.

Dated: _____

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Maureen Doherty
Secretary

The foregoing minutes were approved:

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Benjamin F. Carter
President